PWM

Effective water resource management

YOLO COUNTY
FLOOD CONTROL & WATER CONSERVATION DISTRICT

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Central Valley Regional Water Quality Control Board

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Comments on Delta Hg TMDL

The Yolo County Flood Control and Water Conservation District is involved in a number of resource management efforts that seek to integrate a broad set of interests that include minimizing and abating impacts of pollutants, including mercury. Many of our efforts involve waters from Cache Creek and aspects of the Cache Creek settling basin, so we have a keen interest in elements of the TMDL that affect these resources. In pursuing our work we are confronted with the need to balance the various needs while making progress on all fronts. To this end, we think there are some features of the proposed TMDL that could be changed to improve our ability to serve multiple needs while also creating a better framework for management of mercury problems.

1. **Specifically Consider the Need for Multi-benefit Management Outcomes.**

   The TMDL provides opportunities to describe why certain goals may be infeasible to attain. But it should also allow for over-riding considerations that fall short of being technically infeasible. In cases where other competing benefits would be significantly harmed by pursuing mercury controls, there should be a way to avoid this harm. In such cases, the maximum mercury control that is practical should be required.

2. **Allow for Management of Bioaccumulation Processes.**

   The TMDL focus is on concentration and mass while the problem is defined in terms of bioaccumulation. The TMDL should anticipate the possibility of a means for changing the bioaccumulation rates and provide a way to shift the mass and concentration targets if bioaccumulation can be, or is, altered.

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Possible language: BPA page 1, under "Delta Mercury Control Program" in first paragraph, 3rd sentence add to the end of the sentence: *,and allows adjustment of these control measures based on changes in bioaccumulation.* BPA page 3, under Phase 2 Characterization and Control Studies, 1st paragraph, insert new sentence after 2nd sentence: *Characterization studies may include assessment of bioaccumulation. Control studies may include evaluation of methods to change bioaccumulation and uptake rates of methylmercury*

3. **Consider the Cache Creek Settling Basin to have a limited life expectancy**

The TMDL envisions using the settling basin as a permanent interruption or control on sediment transport. From several perspectives this may be a shaky assumption and is not likely to be sustainable. The current configuration of the settling basin was designed with a life expectancy of 50 years. That 50 year term assumed that the basin would experience a 50% trapping efficiency over its lifetime. The TMDL calls for increasing trapping efficiency to 75%, which would shorten the useful life of the basin. Also current law requires Sacramento, Woodland, and other cities throughout the valley to develop plans and programs for flood protection for the once in 200 years storm event. The settling basin is a key landscape features that influences flooding in both Woodland and Sacramento. It is possible that providing 200 year protection for these cities will require changes to the basin, and possibly to other parts of the Yolo Bypass. Also the Department of Water Resources is charged with reassessing the flood protection system. This reassessment may lead to a resizing of the Bypass capacity, which would undoubtedly affect the settling basin. The TMDL anticipates some of the changes to the features of the bypass, but looks to the settling basin as a permanent feature. For flood management purposes the bypass acts as an integrated system. Changing one feature has implications for the other features, which means the TMDL should anticipate possible changes to the settling basin. In a larger context the TMDL needs to seek implementation strategies that provide for the natural processes of sediment transport while minimizing mercury exposure in the delta.

4. **Clarify key terms and responsibilities**

If the relationship between sediment or total suspended solids (TSS) and mercury transport is sufficiently strong, the TMDL should instruct that sediment or TSS monitoring will be conducted, and specify the conversion factors for estimating mercury loads based on these other parameters. If the relationship between mercury and sediment or TSS is not sufficiently strong the TMDL should eliminate references to sediment controls and focus only on the mercury

levels. Directing the use of sediment of TSS monitoring in lieu of mercury or methyl mercury monitoring would greatly reduce monitoring costs.

Define what is meant by having" the potential to increase ambient methylmercury levels" or how one would evaluate this potential. Perhaps a list of land use changes that would trigger this potential is the easiest way to approach the issue. The TMDL notes that land use changes from agriculture to wetlands creates this potential. What other land use changes create the potential? This is important to clarify which lands need characterization studies.

Define how "net source of methylmercury" should be determined. One approach is to measure mercury load based on Julian days for a period of at least 12 months and at least 1 measurement per month for waters coming into and leaving lands subject to this characterization. Load measurements require concentrations and volumes. Concentrations should be measured using sediment or TSS as suggested above with the appropriate conversion factors identified by the Regional Board. Water volume should be measured using delivered or pumped water amounts where available, or using velocity measures and cross sectional areas, or using hydraulic models.

Thank you for the opportunity to provide comments on the TMDL. Should you have any questions regarding these comments, please contact me.

Cordially,

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